

ratory organs, and the mode in which the blood circulates through them, as he has seen in a neighbouring family, *Sialis*, and reviewed what is yet known of the habits of the insect in connexion with these remarkable structures.

The author regards *Pteronarcys*, from the circumstance of its possessing in its winged state the means of both aquatic and aerial respiration, as an *Insect Proteus*, the representative of the *Proteus* of *Vertebrata*, both in structure and habits.

The anatomy of some parts of the dermo-skeleton, of the spiracles, and of the distribution of its internal respiratory organs, as compared with that of neighbouring genera, is then described, as well as of the digestive organs, and nervous and reproductive system. These are minutely examined and the structures delineated on an accompanying plate.

#### BOTANICAL SOCIETY OF EDINBURGH.

June 8, 1848.—The Rev. Dr. Fleming, President, in the Chair.

The following communications were read:—

1. "Notice of Fossil *Diatomaceæ* found in Aberdeenshire," by G. Dickie, M.D. (See p. 93 of the present Number.)

2. "On Microscopic Bodies existing on the Epidermal Surface of the Lilac," by Mr. W. M. Dobie.

These bodies were described as being of a circular or elliptical form, composed of a congeries of cells, and quite distinct from the stomata. They were represented as about one-thousandth part of an inch in diameter, and as containing occasionally granular matter in their interior. In most cases they were found to be elevated above the surface of the epidermis, but occasionally a depression or pit seemed formed to receive them. By moistening the leaf and scraping it with the edge of a knife they were in some instances detached with a funnel-like prolongation on their lower side. The author noticed the action of various reagents upon them, such as iodine, acetic, nitric, and sulphuric acid, and concluded by expressing his opinion that they were of a glandular nature. The paper was illustrated by drawings.

3. "Abstract of Documents by M. Ch. des Moulins, relative to the preservation of the Germinating Powers of Seeds," by Chas. C. Babington, Esq. In this paper several well-authenticated instances are detailed, in which seeds found in tumuli in France, where they must have lain for centuries, had germinated on exposure to the air. Among the species obtained from these seeds, *Heliotropium europæum*, *Medicago lupulina* and *Mercurialis annua*, were most abundant.

Specimens of Tea prepared by Mr. Thomas M'Nab, from plants growing in the Edinburgh Botanic Garden, were exhibited.

Mr. Evans exhibited growing plants of *Paris quadrifolia* and *Ophioglossum vulgatum* recently found in Arniston Woods by Mr. Veitch, gardener at Arniston.

Professor Balfour read a letter from Dr. Dickie of Aberdeen, stating that the species of *Sagina* found on the sea-coast of Aberdeen is the *S. maritima* of Don, not of Smith, and the *S. stricta* of Fries.